



Transient Voltage Suppressor for Automobile Button

Features

- High surge current capability
- Low loss
- Low forward voltage drop
- Low leakage current
- High surge forward current capability
- High temperature soldering guaranteed: 250 °C/10S

Mechanical Data

- Case: JEDEC ARS molded plastic
- Polarity: Color band denotes cathode

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

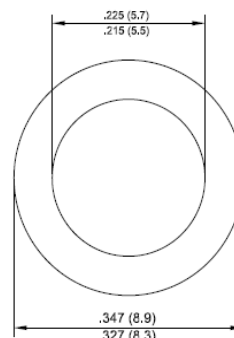
Applications

- Generally applied in alternator, motorbike , automobile, etc.

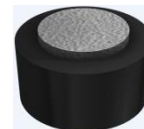
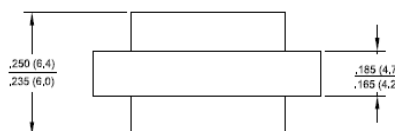
Breakdown Voltage - 24 to 40Volts

Forward Current - 50 Amperes

ARS



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	ARS5024		ARS5028		ARS5040		Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	16		20		28		V
Working Peak Reverse Voltage	V _{RWM}	16		20		28		V
Maximum DC Blocking Voltage	V _{DC}	16		20		28		V
Breakdown voltage Min@ I _{BR} =100mA/T _A =25℃	V _{BRL}	20		24		38		V
Breakdown voltage Max@ I _{BR} =100mA/T _A =25℃	V _{BRH}	26		32		42		V
Maximum Average Forward Rectified Current @T _L =125℃	I _(AV)	50						A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	500						A
I ² t Rating for Fusing (t<8.3mS)	I ² t	1037.5						A ² S
Maximum Instantaneous Forward Voltage at Rated Forward Current	V _F	1.0						V
Maximum DC Reverse Current at Rated DC Bolcking Voltage @T _J =25℃	I _R	0.2						uA
Operating Junction Temperature Range	T _J	-55 to +150						℃
Storage Temperature Range	T _{STG}	-55 to +150						℃
Position of polarity ring denotes cathode, while color denotes voltage gradation.		Red	Yellow	Orange	Silver	Green	Blue	

Note: The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

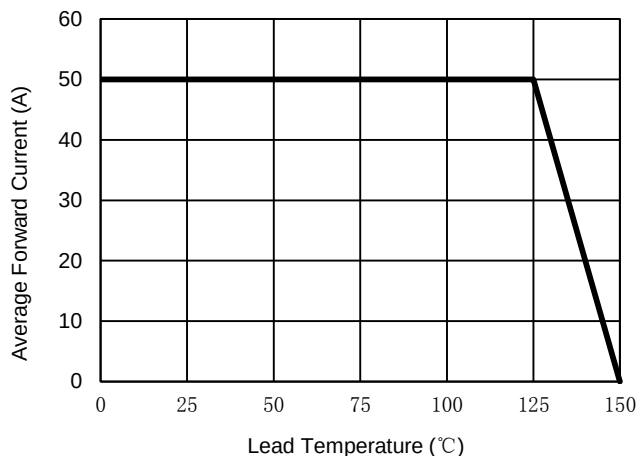


Fig. 2 - Maximum Non-Repetitive Surge Current

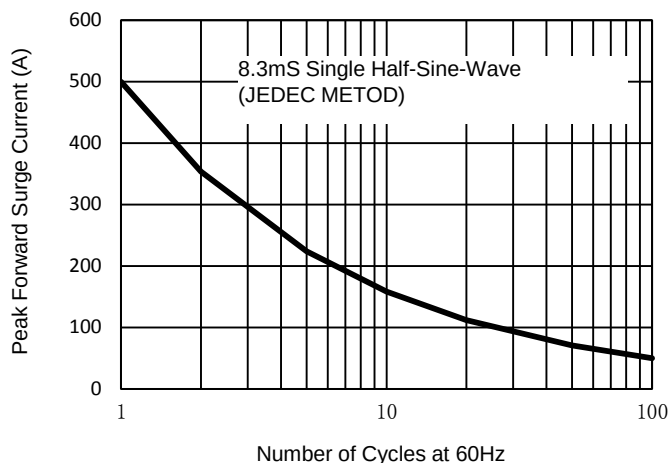


Fig. 3 - Pulse Waveform

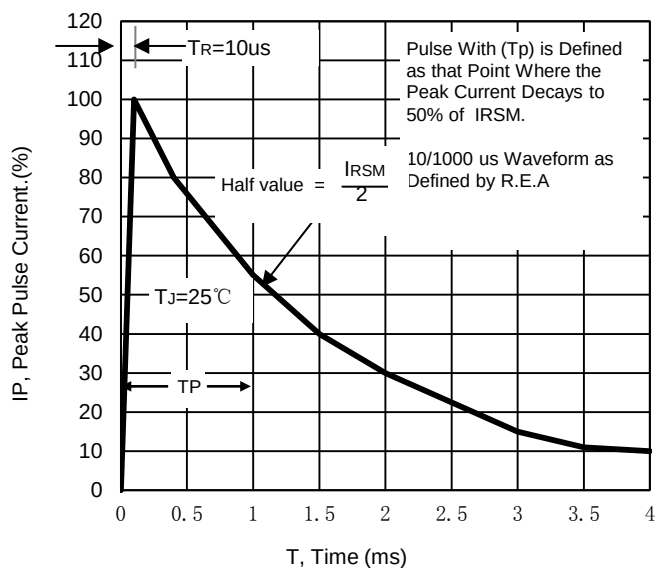


Fig. 4 - Typical Forward Characteristics

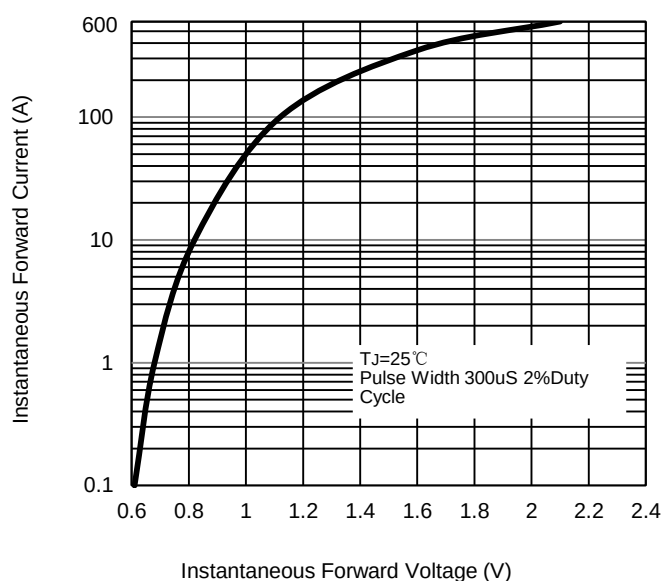
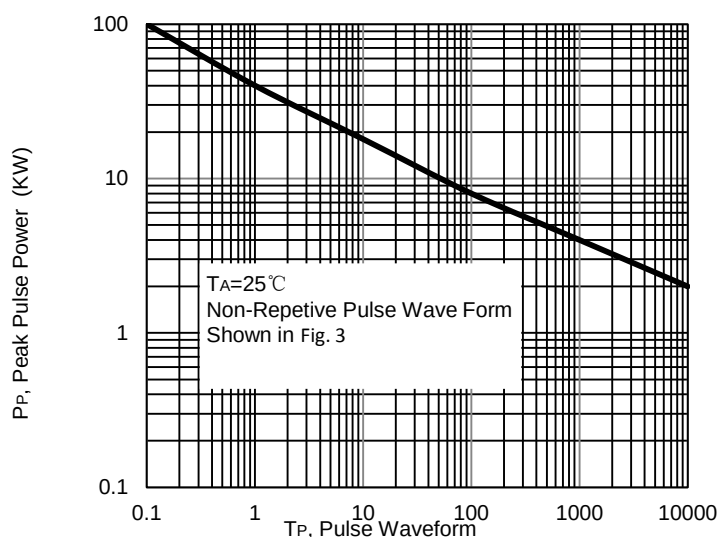


Fig. 5 - Pulse Rating Curve



The curve above is for reference only.

ARS50*-B-UN/99-00/01

Rev. 11, 18-May-2020



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